



# SOIL AND WATER Resources



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March 2017

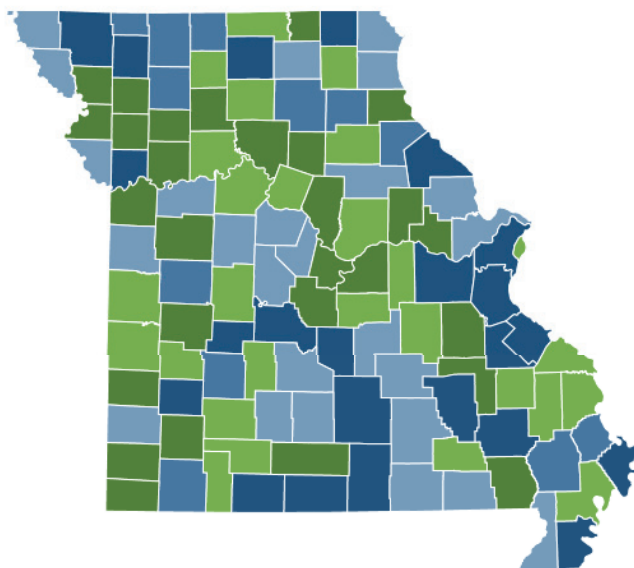
## Visit Your Local Soil and Water Conservation Districts on the New Website at [mosoilandwater.land](http://mosoilandwater.land)

Missouri's 114 Soil and Water Conservation Districts have a brand new website located at [mosoilandwater.land](http://mosoilandwater.land). Each district has its own webpages with information about the many conservation practices available, including news, upcoming meetings and events, board meetings, board election information, office directions, a staff directory and more. Sign up for email and text messages from districts you are interested in by clicking the "Receive Updates from the District" subscription button available on each district home page.

### Missouri Soil and Water Conservation Districts

## Soil and Water Conservation Districts

Click on one of Missouri's 114 Soil and Water Conservation Districts below to access their website and learn more about soil and water conservation projects in their district. Or, select a county from the drop down menu to the right.



### Select a County

- Choose -

To assist districts and customers, links to commonly needed forms are being provided:

- [Vendor Input/ACH/EFT Form 300-1489](#)
- [Landowner Authorization](#)
- [Operator Authorization Form](#)

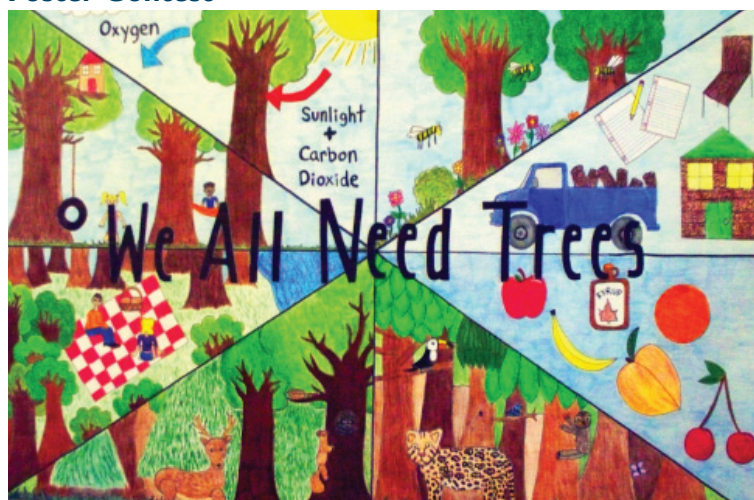
Missouri's 114 soil and water conservation districts are organized under state law to carry out Missouri's soil and water conservation programs. The districts provide information and education, financial incentives, and technical support with design, implementation and maintenance to voluntarily implement soil and water conservation practices that decrease soil erosion and protect water resources.

Soil and water conservation districts are local people solving local problems. In most cases, regular board meetings are held monthly and are open to the public. Most districts also have an informational meeting in which generally the past year's accomplishments are reviewed, outstanding agricultural producers are recognized, and landowners from the county are invited to learn more about the various programs offered by the districts. Contact your district for more information at the number above to get involved with soil and water conservation activities in your area.



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## Jessica Venvertloh from Polk County Wins 3rd Place in 2016 National Association of Conservation Districts Poster Contest



### Jessica Venvertloh won 3rd place in the 2016 National Association of Conservation Districts Poster Contest.

The 2016 winners of the National Association of Conservation District's poster and photo contests were announced Jan. 26 at the organization's 71st Annual Meeting in Denver, Colorado. Each year, the NACD photo and poster contests give students and adults alike the opportunity to display their artistic talents on a national stage. Missouri had a winner this year in the tenth grade through twelfth grade division. Jessica Venvertloh of Polk County placed third. She is a tenth grader at Fair Play High School. More than 250 kindergarten through 12th grade students from more than 30 states submitted "We All Need Trees"-themed posters in the contest. Read more online at <http://bit.ly/2jV4kiH>.

## Missouri Envirothon to be held April 26



### Volunteers provide instructions before students begin their testing at one of the outdoor stations at the annual Missouri Envirothon.

The Missouri Envirothon Program consists of seven regions across the state with each regional holding a competition either in the fall or early spring. The top three teams from each of these regional competitions advance to the state competition, the Missouri Envirothon, which will be held April 26 at the Bradford Research Center in Columbia.

The winning Missouri Envirothon team will represent Missouri at the North American Envirothon (a program of the National Conservation Foundation, the largest North American natural resource competition). The Envirothon is held in varying locations across the United States and Canada with teams from Canadian Provinces and Territories as well as the majority of the United States.

Envirothon teams consist of five students from grades 9-12. They compete at outdoor stations testing on aquatic ecology, soils/land use, forestry, wildlife, and a current environmental issue. There is also an oral component with the students presenting their solution to the problem they were given concerning the current issue topic for the year.

## Switchgrass May Be a Good Option for Farmers Who Have Lost Fertile Topsoil

### Switchgrass Can Improve Soil Quality on Eroded Farms, Study Finds

The loss of fertile topsoil from agricultural fields is a water quality and economic problem for modern farmers. When runoff water washes topsoil from agricultural fields in areas with claypan soils, including parts of Missouri, Iowa, Kansas, Illinois, Oklahoma and Texas, farmers are often left with an exposed subsoil clay layer that creates difficult conditions for growing crops.

Now, a study from the University of Missouri College of Agriculture, Food and Natural Resources has found that switchgrass, which is a native prairie grass plant, improves soil and water quality.

"Once a farm loses its topsoil due to erosion, the soil recovers very slowly," University of Missouri Soil Scientist Dr. Stephen Anderson said. "Switchgrass can be grown efficiently on eroded claypan soils; farmers who have lost their topsoil may want to consider growing this hardy plant. Switchgrass can be harvested and sold as a biomass crop for ethanol production or as fuel for power plants. While demand depends on the current market for biomass crops, this could be an answer for these farmers who otherwise have challenges obtaining good economic returns growing grain crops on eroded land."

"Claypan layers have lower water permeability, making it more difficult for plants to receive water and for farmers to obtain good economic returns from grain crops when the silt loam topsoil is lost from these areas," Anderson said. "This lower permeability prevents oxygen and water from seeping into the eroded soil."

"We found that over a number of years, the switchgrass was able to increase, or improve, the water permeability into this eroded soil, leading to an 11 percent higher water saturation than the areas where corn and soybeans were grown. This study shows that not only can switchgrass grow in these eroded claypan soil areas, but it actually can improve the soil over time, potentially opening the door for better production of grain crops subsequently grown in those areas."





**The MU researchers studied plots with varying amounts of topsoil. Each plot included corn, soybeans and switchgrass. They found that switchgrass grew well in areas with little or no topsoil and actually improved the soil in those areas.** University of Missouri photo

This study was published in the Soil Science Society of America Journal. Additional authors include Newell Kitchen, soil scientist with the USDA-ARS Cropping Systems and Water Quality Unit and an adjunct professor at MU, and Samuel Haruna, a doctoral student at MU.

### **Crop Water Use App for Irrigation**

Water is an important factor that can affect crop yields. University of Missouri Extension developed an online application to help farmers produce higher crop yields by improving irrigation management. The Crop Water Use application can run on an office computer or smartphone. To register, go to [cropwater.org](http://cropwater.org).

The Crop Water Use program is designed to simplify calculations required for tracking soil moisture in fields. The application saves farmers time by automatically entering weather information for each field and making daily calculations used for irrigation planning.

An online guide explains how to track soil moisture in fields for optimum yields and water conservation and gives information about how to use the application to that end. Read more about the app online at [bit.ly/2msP0ur](http://bit.ly/2msP0ur).

### **Dates to Remember**

March 25 - Pesticide Roundup at the University of Missouri's Graves-Chapple Research Center at 29955 Outer Road in Fairfax. [on.mo.gov/1WxgYoC](http://on.mo.gov/1WxgYoC)

April 20 - Missouri Soil and Water Districts Commission meeting at the Lewis and Clark State Office Building in Jefferson City. [on.mo.gov/1RR1biP](http://on.mo.gov/1RR1biP)

April 26 - Missouri Envirothon at the Bradford Research Center in Columbia. [moenvirothon.org](http://moenvirothon.org)

June 3 - Pesticide Roundup at University of Missouri Extension Center at 260 Brown Road in St. Peters. [on.mo.gov/1WxgYoC](http://on.mo.gov/1WxgYoC)

June 24 - Pesticide Roundup at DeWitt Auction Company, 220 DeWitt Dr. in Sikeston. [on.mo.gov/1WxgYoC](http://on.mo.gov/1WxgYoC)

July 15 - Pesticide Roundup at Litton Agri-Science Learning Center at 10780 Liv 235 off Highway 190 in Chillicothe. [on.mo.gov/1WxgYoC](http://on.mo.gov/1WxgYoC)

Oct. 14 - Pesticide Roundup at S & H Farm Supply, 7 State Road A in Lockwood. [on.mo.gov/1WxgYoC](http://on.mo.gov/1WxgYoC)



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